

STATE OF ILLINOIS  
ILLINOIS COMMERCE COMMISSION

CONSUMERS ILLINOIS WATER  
COMPANY

Proposed general increase  
in water and sewer rates.

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: NO: 00-0339  
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DIRECT TESTIMONY  
OF  
MARK NIEDENTHAL  
on behalf of  
DEVRO-TEEPAK, INC.

CHIEF CLERK'S OFFICE

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John P. Meyer  
Law Offices of John P. Meyer  
P. O. Box 774  
Danville, IL 61832  
217/443-0304

Christopher P. Meyer  
Dukes, Ryan, Meyer, Johnson & Freed  
146 N. Vermilion Street  
Danville, IL 61832  
217/442-0384

**DIRECT TESTIMONY OF MARK NIEDENTHAL  
BEFORE THE ILLINOIS COMMERCE COMMISSION  
CONSUMERS ILLINOIS WATER COMPANY  
DOCKET NO. 00-0339**

Q. Please state your name and address.

A. My name is Mark Niedenthal and my business address is 915  
N. Michigan Avenue, Danville, IL 61832.

Q. By whom are you employed?

A. I am employed by Devro-Teepak, Inc.

Q. What is your position with Devro-Teepak, Inc.?

A. My position at Devro-Teepak is Cellulose Plant Support  
Engineer with responsibilities mainly in the Utilities  
area.

Q. What is your educational and work experience background?

A. My educational background includes a Bachelors Degree in  
Mechanical Engineering which I received in 1976 from  
Rose-Hulman Institute of Technology in Terre Haute,  
Indiana. I have also taken numerous specific short  
courses to benefit me in my project work at Devro-Teepak.  
I have been a member of the American Society of  
Mechanical Engineers since my college days. Since 1980  
I have been a member of the Danville Engineers Club and  
have served in all the offices.

My professional career began at FMC in 1976 designing and  
field testing specialized harvest equipment for the  
vegetable packing industry.

Q. What has been your work experience with Devro-Teepak?

A. In October, 1979, I was hired by Devro-Teepak, then Teepak, to work in the R&D Department on shirring (finishing) equipment. In 1982 I became part of the Maintenance Supervision staff in the Shirring Department and worked with Maintenance, Development and Plant Support in Shirring for several years. In the fall of 1990 I was assigned duties as the Plant Utilities Engineer. Since that time I have been in charge of projects involving steam boilers, condensate recovery systems, water softeners, electric and steam driven chillers, cooling towers, air compressors of various types, compressed air delivery systems, fire protection and alarm systems, air handling units, heat exchangers, steam heated process dryers, asbestos removal, electrical service, heat recovery and energy management in various forms. I routinely monitor the performance of the boilers and schedules of the plant in order to make proper gas nominations to the broker, pipeline and local distribution company. I have also functioned as the contact person for the various utilities as well as our insurance carriers and inspectors. My duties also include responsibility for the contractor safety program.

Also, as part of my utilities responsibilities, I review the gas, water and electric bills monthly and compare them to the internally collected data and overlapping

vendor reports. I have been involved in recent negotiations for gas and electric supply to our Danville Plant.

Q. Are you familiar with the issues concerning supply of water to the Danville Plant?

A. I am very familiar with the issues concerning supply of water to the Danville Plant and have been heavily involved with the development of those costs. I personally commissioned Mr. Art Berg to develop costs for installation of a pipeline from 333 E. Fairchild to 915 N. Michigan based on current local material and labor costs. I also commissioned Mr. Bruce Baughman of the Hennemn, Raufeisen & Associates to investigate the cost of installing the pumping and treatment facility and the operating costs associated with it. Electrical costs are based on our current firm contract with Illinois Power.

Q. Have you prepared an analysis of the costs projected for installing and maintaining water wells on Devro-Teepak property for supplying water to the Danville Plant?

A. Yes. I have prepared such an analysis which is contained in Devro-Teepak Exhibit 1A.

Q. I now show you a document consisting of 4 pages and marked for identification as Devro-Teepak Exhibit 1A and ask if you prepared this document and how it was prepared.

A. Yes, I did. In the last general rate increase case filed

by Consumers Illinois Water Company, I presented such a financial analysis and I used it as my guide by updating it for presentation in this docket with the information provided by the consultants mentioned previously.

After all this, I put together my Exhibit 1A which includes the capital project economic analysis prepared by Buranapong Linwong, Corporate Controller of Devro-Teepak.

Q. Would you briefly summarize the result contained by your development of Exhibit 1A?

A. Exhibit 1A clearly indicates that a 2.5% water rate increase would yield to Devro-Teepak a return on investment of their proposed well water system of 17.6% with a 7.6 year payback.

Q, Does this conclude your testimony?

A. Yes, it does. I will, of course, answer any questions anyone has regarding Exhibit 1A.

[illegible]

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**Devro-Teepak Exhibit 1A**  
Capital and Operating Estimates  
Devro-Teepak Proposed Well Water Plant

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Engr 2000 Est  
Capital Costs

A. Land Acquisition		
Done in 1989		\$65,000 f
B. Water Wells		
Two 120 ft. wells and well pumps		\$190,000
Well pump house		54,000 f
Head piping and valves		21,100
Electrical		16,600
Subtotal		<hr/> \$281,700
C. Water Main to Plant - 10" Pipeline		
14,500 ft Class 51 ductile iron pipe, fittings distribution line, and polywrap		\$206,642
Gravel bedding		30,458 f
Street, bridge and railroad crossing		109,358 f
Pipeline installation		210,896
Cleanup, flushing, testing and sterilization		68,488 f
Engineer design and drafting		46,800 f
Surveying, permits, insurance, and railroad inspection/protection		34,280 f
Subtotal		<hr/> \$706,922
D. Backflow prevention valve and structure		
Building		\$38,327 f
Valves and meters		10,056
Engineering design		8,200 f
Subtotal		<hr/> \$56,583
E. Well Water Treatment Station		
Flow 800 gpm design/1200 gpm Max Pressure sand and activated carbon filters, oxidation tank, blower, interconnecting piping, control panel, instrumentation, and filter media		\$642,050
Pre engineered building and foundation (70'x40x20)		155,000 f
Equipment installation and start up		156,600
Engineering, design, and drafting		82,415 f
Subtotal		<hr/> \$1,036,065
F. Contingency	10.0%	\$208,100 f
Estimated Total Installation Costs		<hr/> \$2,354,370 =====

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**Devro-Teepak Exhibit 1A**  
**Capital and Operating Estimates**  
**Devro-Teepak Proposed Well Water Plant**

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<u>Year</u>	<u>Carbon filter bed</u>	<u>Maint.</u>	<u>Org Coag</u>	<u>Na Hypochl</u>	<u>Electricity</u>	<u>Sand filter bed</u>	<u>Waste Water Treatment</u>	<u>Total</u>
Construction & start up								
2001	\$0	\$29,079	\$4,500	\$14,688	\$34,256	\$0	\$1,486	\$84,009
2002	0	29,079	4,635	15,129	34,256	0	1,531	84,629
2003	0	29,079	4,774	15,582	32,955	0	1,576	83,967
2004	0	36,349	4,917	16,050	32,955	0	1,624	91,895
2005	19,246	43,618	5,065	16,531	32,955	0	1,673	119,088
2006	19,824	50,888	5,217	17,027	32,955	8,080	1,723	135,714
2007	20,418	58,158	5,373	17,538	32,955	8,323	1,774	144,540
2008	21,031	65,427	5,534	18,064	32,955	8,572	1,828	153,412
2009	21,662	72,697	5,700	18,606	32,955	0	1,882	153,503
2010	22,312	72,697	5,871	19,165	32,955	0	1,939	154,939
2011	22,981	72,697	6,048	19,739	32,955	0	1,997	156,417

Projected operating cost inflation of all items except maintenance & energy =

3.0% per annum

Maintenance Base\* - mechanical installed equipment costs =

\$1,453,944

\*Maintenance base = total installation of \$2,354,370 minus items marked with "f" and contingency.

Progressive percentage by year

2001	2.0%	2006	3.5%
2002	2.0%	2007	4.0%
2003	2.0%	2008	4.5%
2004	2.5%	2009	5.0%
2005	3.0%	2010	5.0%

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**Devro-Teepak Exhibit 1A**  
Estimated Annual Operating & Maintenance Cost  
Devro-Teepak Proposed Well Water Plant

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Operating Costs

Energy 99 kws x 8760 hr/yr X \$.0395/kwh (a)	\$34,256
Maintenance (see progressive estimate)	see Exhibit 1A pg 3 of 4

Chemical & Supplies

Organic coagulants \$1.50/lb. x 3,000 lbs/yr	\$4,500
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Na HypoChlorite \$.08/lbs x 183,600 lbs/yr	\$14,688
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Carbon filter media replacement (b)

Carbon per unit (5 units)	\$12,000
Remove, replace, dispose	<u>5,100</u>
Total costs per unit	\$17,100

Replace one unit after fourth year operation, and one unit per year there after (five units).

Sand filter media replacement (b)

Sand per unit (3 units)	\$3,170
Remove, replace, dispose	<u>3,800</u>
Total costs per unit	\$6,970

Replace one unit after fifth year operation, and one unit per year thereafter (three units).

- a. Electrical costs based on current firm contract with Illinois Power Co.
- b. Estimated by Bruce Baughman, Henneman Rauffeisen & Assoc.